ZW15S
Wireless Lighting Control On/Off Switch and 3 - Way Switch Kit

SPEAKS Z-WAVE®

◆ SPECIFICATIONS

Voltage.. 120VAC, 60Hz
Maximum Load requirements:
Incandescent...1000W
Ballast...1200VA
Resistive..1800W
Motor... 1/2 HP
Signal (Frequency)... 908.42 MHz
Operating Temperature.. 32-104° F
Range...Up to 100 feet line of sight
between the Wireless Controller and the closest Z-Wave receiver module.

◆ FEATURES

● Wireless RF technology creates a mesh network for command and
   control interoperability
● Provides manual and remote control
● Blue LED indicates switch location in a dark room
● Ease of installation(no new wiring)
● Kit includes primary relay switch and auxiliary switch for control one light
   from two locations.
● Compatible with other Z-Wave enabled devices
● Acts as a Z-Wave repeater to extend the range

◆ DESCRIPTION

Z-Wave unifies all your home electronics into an integrated wireless network
and helps them talk to each other . Any Z-wave enabled item can be added
to the network, and making your home electronics fully compatible.

This ZW15S switch is a Z-Wave enabled device and is fully compatible with
any Z-Wave enabled network. Z-Wave enabled devices displaying the
Z-Wave logo can also be used with it regardless of the manufacturer. In a
Z-Wave network, each device is designed to act as a wireless repeater.
Repeaters will retransmit the RF signal from one device to another until the
intended device is reached. This ensures that the signal is received by its
intended destination by routing the signal around obstacles and radio dead
spots.

WARNINGS AND CAUTIONS

To be installed and/or used in accordance with appropriate electrical codes
and regulations. Exercise extreme caution when using Z-Wave devices to
control appliances. Operation of the Z-Wave device may be in a different

room than the controlled appliance, also an unintentional activation may
occur if the wrong button on the remote is pressed. Z-Wave devices may
automatically be powered on due to timed event programming.Depending
upon the appliance, these unattended or unintentional operation could
possibly result in a hazardous condition.

Z-Wave enabled devices should never be used to supply power to, or
control the On/Off status of medical and/or life support equipment.

If you are unsure or uncomfortable about performing the installation,
please consult a qualified electrician.

◆ INSTALLATION

This switch may be used in new installations or to replace an existing wall switch.
It may be used by itself for 2-way control(one switch & one load),with one ZW15S-K
Auxiliary Switch for 3-way control(two switches & one load) . When used by itself
for 2-way control, please make sure that the screw terminal for the traveler wire
is insulated(Do not remove the tape over the terminal if you are not using the
traveler connection).

IMPORTANT NOTE ABOUT 3-WAY CIRCUITS

The term "3-way circuit" refers to a circuit with two switches and one load (light)
like you find at the top and bottom of a stairway. There are many ways to physically
wire a 3-way circuit and it is important to understand how the circuit you wish to
upgrade to Z-Wave control is wired. Below is a description of a typical 3-way circuit.
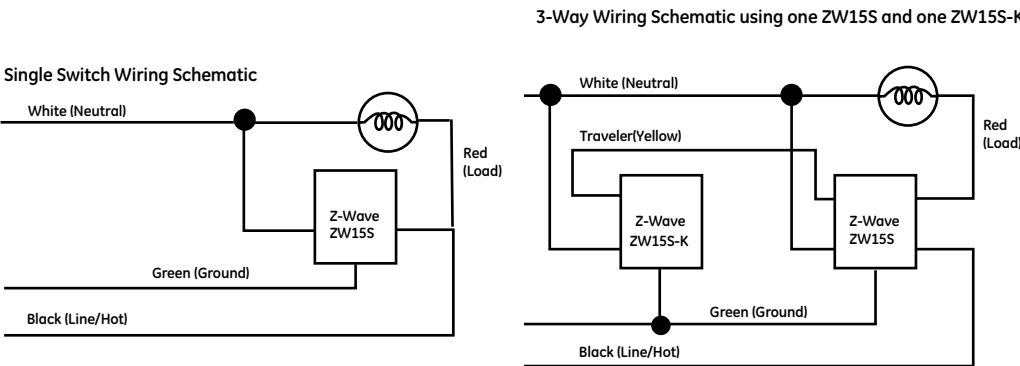
One of the ways to wire a two-switch/one-load circuit is to route the incoming power
through the first switch, then to the second switch and then to the load. Although very
common and by no means a standard, it is the easiest to convert to Z-Wave control.

With this type of circuit, Switch 1 is replaced by the Z-Wave auxiliary switch and
Switch 2 is replaced with the primary Z-Wave switch. The auxiliary switch does
not actually control the power; instead, it sends a momentary voltage signal
through the traveler wire to the primary switch which in turn, controls the power
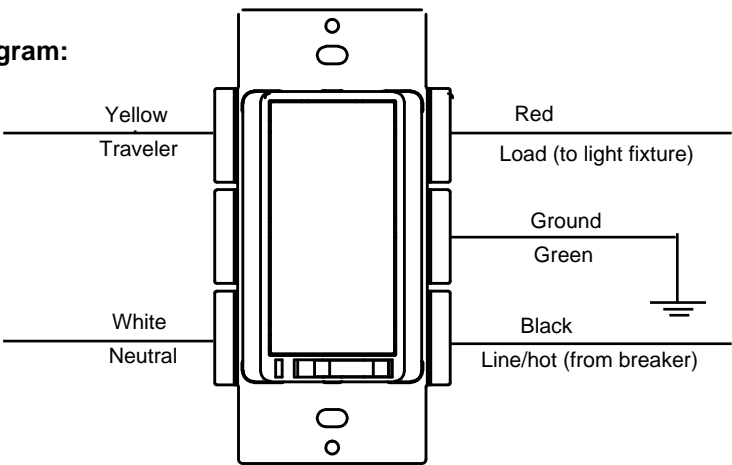to the load.

Typical 3-way circuit:

Black — Black — Red
Yellow
Switch 1 — Switch 2
White
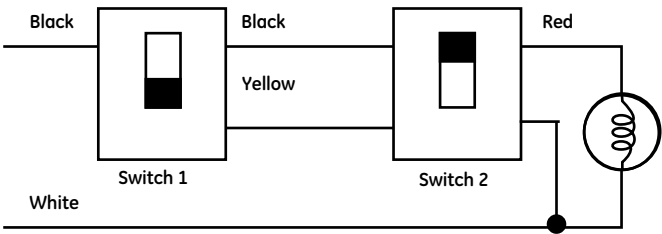
**Please consult an electrician if you have trouble identifying the type of wiring
circuit you wish to convert or if you do not feel confident in your ability to
convert the circuit to Z-Wave control.**

3-Way Wiring Schematic using one ZW15S and one ZW15S-K

Single Switch Wiring Schematic

White (Neutral)
Red (Load)
Z-Wave ZW15S
Green (Ground)
Black (Line/Hot)

White (Neutral)
Traveler(Yellow)
Red (Load)
Z-Wave ZW15S-K
Z-Wave ZW15S
Green (Ground)
Black (Line/Hot)

Wiring Diagram:

Yellow — Red
Traveler — Load (to light fixture)
Ground
Green
White — Black
Neutral — Line/hot (from breaker)

1.WARNING : To avoid fire,shock ,or death.Turn off power at circuit breaker
   or fuse and test that power is off before wiring.
2. Remove wall plate, switch mounting screws.
3. Carefully remove the switch from the switch box.
4. Disconnect the wiring from the old switch.
5. Connect the Z-Wave switch as shown in the wiring diagram: Black lead to
   hot wire, white lead to neutral wire, red lead to load wire,green lead to
   ground wire.
6. Optional for 3-way control: Connect the traveler wire(Yellow) to the screw
   terminal marked TRAVELER. The other end of this traveler wire connects to
   the TRAVELER screw terminal on the ZW15S-K Auxiliary Switch. See the
   following section for information about wiring the ZW15S-K Auxiliary Switch.
7. Check connections to be sure they are tight and no bare conductors
   are exposed.
8. Insert the switch into the outlet box carefully.
9. Make sure the switch to the box using the supplied screws.
10. Attach the wall plate.
11. Restore power to the circuit breaker and test the system.

Optional for 3-Way Control:
1. The ZW15S-K requires the following 3 wiring connections:
a. The Traveler wire. This is used to send voltage signals to the primary Z-Wave

switch. The signals tell the Z-wave switch what action to perform.
b. Ground.
c. Neutral.
2. DO NOT connect the ZW15S-K auxiliary switch to the home's black Hot(Line) wire.

Air Gap Switch

The ZW15S has an air gap switch on the lower right side (see diagram for location) to completely disconnect power to the load. Pull the air gap switch OUT to disconnect the power while replacing light bulbs and push it all the way back in for normal operation. The air gap switch must be all the way in for the switch to function and control the lighting.

◆ OPERATIONS

Switch Paddle

LED Light

Air Gap Switch
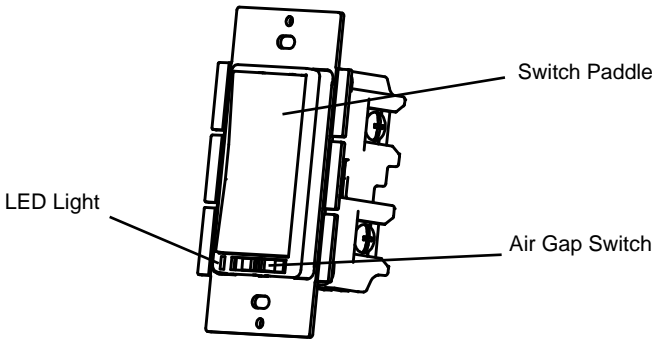
Basic Operation

Remote Control

Z-Wave remotes provide control of an Individual device,Groups of devices and Scenes. Other brands of Z-Wave Certified remotes may not offer as much flexibility in how you can set up your lighting control network. Please refer to your remote control's instruc--tions for details on its capabilities and instructions for adding and controlling devices.

Manual Control

The switch paddle on the ZW15S allows the user to:
Turn ON/OFF the connected lighting.
● To turn the connected lighting ON: Tap the top of the switch paddle.
● To turn the connected lighting OFF: Tap the bottom of the switch paddle.
  Once program button is pressed, the device will enter into learn mode to accomplish inclusion or exclusion by controller.
● Refer to the instructions for your primary controller to access the network setup function and include or exclude devices.
● When prompted by your primary controller, tap the top or bottom of the paddle.
● The primary controller should indicate that the action was successful. If the controller indicates the action was unsuccessful, please repeat the procedure.
● Once the switch is part of the network, the same basic procedure is used to add the switch to groups & scenes or change advanced functions. Refer to the primary controller's instuctions for details.

Please Note: After a power failure, the ZW15S switch returns to the last used state.

ADVANCED OPERATION

The following Advanced Operation parameters require that you have an advanced controller. However, basic remotes do not have this capability.

All-ON and All-OFF

Depending upon your primary controller, the ZW15S switch can be set to respond to ALL-ON and ALL-OFF commands in up to four different ways.Some controllers may not be able to change the response from its default setting. Please refer to your controller's instructions for information on whether or not it supports the configuration function and if so, how to change this setting.

The four possible responses are:

- It will respond to ALL-ON and the ALL-OFF command (default).
- It will not respond to ALL-ON or ALL-OFF commands.
- It will respond to the ALL-OFF command but will not respond to the ALL-ON command.
- It will respond to the ALL-ON command but will not respond to the ALL-OFF command.

LED Light and Buttons Configuration

By default setting ,once press button "up", the load connected to ZW15S will be turned on,and LED light will turn off. We use Command_Class_Configuration to configure LED light state and button toggle. After configuring,once press button "up",the load connected to ZW15S can be turned off and LED light will be turned off.
Configuration details

-Parameter 1 (configure LED light state), default value is 0. Valid values are 0 and 1 with 1byte.
-Parameter 2 (configure button toggle), default value is 0. Valid values are 0 and 1 with 1byte.

◆ WIRELESS RANGE

This device complies with the Z-Wave standard of open-air, line of sight transmission distances of 65 feet. Actual performance in a home depends on the numbers of walls between the remote controller and the destination device, the type of contruction and the number of Z-Wave enabled devices installed in the control network. Most Z-Wave enabled devices act as signal repeater and multiple devices result in more possible transmission routes which helps eliminate " RF dead-spots."

Things to consider regarding RF range:

● Each wall or obstacle (i.e.:refrigerator, big screen TV, etc.)between the remote or Z-Wave device and the destination device will reduce the maximum range of 100 feet by approximately 25-30%.
● Brick, tile or concrete walls block more of the RF signal than walls made of wooden studs and plasterboard (drywall).
● Wall mounted Z-Wave devices installed in metal junction boxes may suffer a significant loss of range (approximately 20%) since the metal box blocks a large part of the RF signal.

Effects of Home Construction on Wireless Range Between Z-Wave Enabled Devices.

Note: The distances shown in the table below are typical examples.Actual performance in your home will vary .

From the Remote (or repeating Z-Wave module) to destination device:					
Type of Construction		Wood Frame with Drywall		Brick, Tile or Concrete	
		Plastic J-Boxes*	Metal J-Boxes	Plastic J-Boxes*	Metal J-Boxes
Number of Walls or Obstacles	0**	100'	80'	100'	80'
	1	70'	56'	60'	48'
	2	49'	39'	36'	29'
	3	34'	27'	21'	17'

Restoring Factory Defaults

All Configuration Parameters can all be restored to their factory default settings by using your primary controller to delete/reset the device.

◆ FCC COMPLIANCE STATEMENT

The equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment uses,generates and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on,the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.

◆ WARRANTY INFORMATION

Our company warranties its products to be free of defects in materials and workman--ship for a period of two (2) years. There are no obligations or liabilites on the part of our company for consequential damages arising out of or in connection with the use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation or reinstallation.

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